

Know how to stay safe from Anthrax

By Col. David Young
PACAF surgeon general

HICKAM AIR FORCE BASE, Hawaii – Anthrax—the term has been heard on every news broadcast across America, stories fill newspapers, and everyone has probably discussed the disease at least once over the last two weeks. But what does the public really know about this ominous sounding affliction? Actually a lot. Anthrax is not new, and the best defense is a good offense – in this case the offense is knowing the disease and how to keep people safe.

Anthrax has been around for a long time. Some historians believe the 5th plague on Egypt as described in the Bible is actually the disease anthrax. It has been described in Greek literature and the Middle Ages, and continues to be a common natural occurrence in many parts of the world.

Anthrax is a disease of herbivores — mainly sheep, cattle, goats, and deer. It was once prevalent all over the world where livestock were raised, but thanks to extensive animal vaccination programs now exists mainly in Africa and Asia.

Sporadic outbreaks do occur in other areas, including rarely, the United States. There was an outbreak in Texas among wild deer earlier this year which included one human cutaneous case and another outbreak in cattle around the North Dakota/Minnesota border in 2000. Humans can be infected in nature, but this is rare and usually involves persons who are occupationally exposed to livestock or animal hides.

Anthrax is caused by the bacteria *Bacillus anthracis*. The bacteria form a hearty spore that is very resistant to destruction and can survive in nature for decades. Exposure to the spores is what usually results in infection and is what officials are concerned about with

bioterrorism.

Infections in people can occur in three ways and the resulting disease depends on the type of exposure.

Cutaneous, or the skin form of anthrax, is by far the most common and results when the spores get into a cut or break in the skin. The good news is that this type responds very well to antibiotics and is almost 100 percent survivable when treated promptly.

Gastrointestinal anthrax can occur when an individual eats undercooked meat from an infected animal. There have been several outbreaks of this type of disease in areas formerly part of the Soviet Union in recent years. This form can be fatal about half the time.

The inhalation form, also called woolsorter's disease, is the most serious type of anthrax infection. It occurs when people breathe in about 8,000-10,000 spores. Generally about 1-6 days after exposure symptoms similar to the flu appear and death follows 2-5 days later. Once symptoms occur it is usually fatal despite extensive treatment.

Anthrax is regarded as one of the more likely biowarfare/bioterrorism threats because of its stability, relatively low cost, and relative ease of acquisition. Just the threat of using a biological agent such as anthrax is enough to provoke concern. Terrorist use of anthrax is more a weapon of mass hysteria and disruption rather than widespread death.

What does all this mean to PACAF troops and their families? Those who have been immunized, to any degree (approximately 18,000 active-duty PACAF personnel have been vaccinated), are at very low risk. Although the vaccination program in PACAF was tem-

porarily halted in June because of delays in getting FDA certification of the vaccine-maker's newly renovated facility, more vaccine will be available this spring.

Those who have not been immunized can still minimize their risk. In the event that people receive a suspicious piece of mail or have any reason for concern, they should follow the guidance distributed by postal officials.

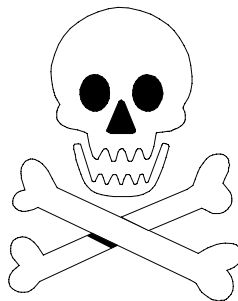
Most of all, people shouldn't panic. Even in the event that it is determined that there was real exposure to anthrax spores, early treatment with the antibiotic ciprofloxacin is virtually 100% preventive. In addition, studies conducted on people

who worked in goat hair mills in the 1960's demonstrated widespread inhalation exposure with very little actual disease. In fact, there were only 18 cases of inhalation anthrax in the U.S. in the 20th century.

Two other things to keep in mind are that anthrax has never been shown to be transmitted from person-to-person so it is not contagious, and once the spores have settled on the ground or other objects it is highly unlikely they can be stirred up again to a level that will cause anything other than the highly-treatable skin form of the disease.

As with many other infectious diseases, the best protection is hand washing with soap and water. Ciprofloxacin is an effective drug, but indiscriminate use of antibiotics can result in other potential problems so people should only take antibiotics while under the care of a healthcare provider.

For details on anthrax, people should contact their primary-care physician or check out the website: http://www.anthrax.osd.mil/HTML_interface/default.html.



Army-Navy crew testing futuristic ship

FORT EUSTIS, Va.— A joint crew of soldiers and sailors recently began testing the capabilities of a new high-speed cargo ship that resembles a huge catamaran.

The Joint Venture High Speed Vessel just returned from an 18-day voyage from Tasmania, carrying a crew that included 21 soldiers from Fort Eustis.

"I've never been on a vessel (before) that could do 35-40 knots," said Staff Sgt. Stephen Muto, a crewmember. "It should be a great boat for the Army and Navy."

The crew sailed back from Tasmania at an average of about 28 knots, according to Muto.

"It probably would have taken a month with the LSV," Muto said, referring to the Army's current Logistics Support Vessel. "It only averages about 12 knots."

Upon its return to Norfolk, Va., the Joint Venture HSV-1 was displayed at the Little Creek Naval Amphibious Base at an acceptance ceremony Oct. 11.

At the ceremony, Rear Adm. Robert Sprigg, commander of Navy Warfare Development Command and Brig. Gen. Robert Dail, commanding general of the U.S. Army Transportation Center and Fort Eustis, spoke about the importance of the experiment to the future of America.

"I think today, we are all seeing a glimpse of the future," Sprigg said. "We're going to find out where this technology fits."

Sprigg said it will be a true joint venture with a crew of members from all services. "This is truly going to be an exciting time," he said.

Dail said he was most excited about the soldiers, sailors and crewmembers that will be involved in the experiment.

"They represent the best our nation has to offer," he said.

Dail also said that the vessel is all about the future.

"This is not a test about the ship," Dail said. "This is a test of the capability it represents. Will the vessel allow us the capability of en route mission planning and rehearsal?"

Chief Warrant Officer William Davis, vessel master, said he was most impressed by the HSV's speed and maneuvering capabilities.

"The speed of the HSV is phenomenal compared to the speed of the LSV," Davis said.

Muto said some of the differences between the Joint Venture HSV-X1 and the Logistic Support Vessel is the HSV has more electronics on board.

"Computers run most of the systems on the boat," Muto said.

"It's a state-of-the-art vessel," said Spc. Stephan Prevot, a vessel crewmember. "It

was very exciting to sail, and the crew was outstanding."

The Joint Venture HSV-X1 was leased by the Tank-Automotive and Armament Command. The U.S. military signed a charter contract with Bollinger/Incat USA, L.L.C. for more than \$20,000,000, for up to two years.

The high-speed, wave-piercing sealift catamaran vessel, built and designed by Australian shipbuilders, underwent six weeks of technical and structural modifications to meet the military's requirements.

Modifications included the building and installation of a helicopter pad suitable for large military helicopters such as the SH-60 Seahawk and the CH-46 Sea Knight.

Incat also designed and constructed a two-part, hydraulically operated vehicle ramp that allows rapid loading and discharge of vehicles from the stern or alongside it.

TACOM will use the vessel to demonstrate its ability to perform specific mission scenarios and limited operational experiments and to move troops, heavy military vehicles and equipment, officials said.

The Army's focus for experimentation is to validate and assess the vessel's capability for meeting the needs of Army Transformation, officials said. They said concepts that will be considered are simultaneous deployment and employment of the Objective Force; fight on arrival; en route mission planning and rehearsal; passengers and equipment moving together; bypassing strategic and operational chokepoints; and entry operations at multiple points.

"The speed of the HSV can get troops into theater quicker, said Chief Warrant Officer Tim Youngpeter, a training crew member.

Chief Warrant Officer Kent Zernicke, a vessel crewmember, said the vessel can operate at 40-plus knots.

"The HSV has the ability to push troops and a crew into theater about four times as fast as the LSV," Zernicke said.

Capabilities to be tested include speed, high payload fraction, longer and more useful ranges and the ability to tailor the payload for optimum mission success.

The joint-service experiment will be coordinated by the Navy Warfare Development Command in close partnership with elements of the Army, Navy, Marine Corps and Coast Guard.

(Editor's note: Information provided by Cindy Sito, Fort Eustis Public Affairs Officer.)